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EXAMINER

MCAVOY, ELLEN M

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/726,376
Filing Date: December 03, 2003
Appellant(s): KOIDE ET AL.

James D. Carruth
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11 February 2008 appealing from the Office action mailed 14 August 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellants' statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 14 November 2007 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellants' statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,384,574	HALIK et al	05-1968
3,985,638	KIRK, JR.	10-1976
5,713,964	SCHREINER et al	02-1998
5,689,031	BERLOWITZ et al	11-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

(1) Claims 1-9 and 14-16 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Halik et al.

Halik et al [“Halik”] disclose jet fuel compositions prepared from straight run kerosene fractions which contain paraffins in an amount of from about 30 to about 75 weight percent, naphthenes (C₁₀ cyclic paraffins) in an amount of from about 20 to about 50 weight percent and aromatics in an amount of from about 5 to about 30 weight percent. See the table in column 2, top. The amounts of the constituents vary according to the crude source of the kerosene fraction such as Mid-Continent, Barco and W.Texas. The tables in columns 11 and 12 set forth catalytically treated charge stocks from which aromatics were removed by silica gel absorption. The examiner maintains the position that the compositions set forth in column 12, lines 9-21, containing C₁₀-C₁₈ paraffins, 9.4 mole percent naphthenes which are cycloparaffins having 10 carbon atoms, and essentially no aromatics clearly anticipate the kerosene compositions of claims 1, 3, 7, 8 and 9. The remaining dependent claims differ by limiting the carbon number of the paraffin component, increasing the ratio of paraffins to cycloparaffins and by specifying a smoke point of the composition. However, the examiner maintains the position that such modifications would have been obvious to one skilled in the art if so desired.

(2) Claims 1-3, 5-9 and 14-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk, Jr. in combination with Halik et al.

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Kirk, Jr. discloses jet fuels having high smoke points of at least 35 and low freeze points of less than -20°F obtained by blending a dearomatized straight run kerosene with a $\text{C}_{10}\text{-C}_{12}$ paraffinic component such as n-decane, n-dodecane, hydrogenated propylene tetramer and hydrogenated butylene trimer. See column 1, lines 27-55. Although Kirk, Jr. does not teach that at least 99 wt.% of the kerosene composition contain n-paraffins and/or iso-paraffins and at least one cyclo-paraffins, the prior art compositions appear to be entirely comprised of saturated hydrocarbons or paraffins. Kirk, Jr. teaches that paraffinic straight run kerosene containing 12 to 16 weight percent aromatics can be treated by solvent extraction or by contact with an adsorbent to remove the aromatics. Halik et al [“Halik”] is added to teach that straight run kerosene fractions typically contain a mixture of paraffins, naphthenes (cyclic paraffins) and aromatics in an amount of from 8.2 to 17.0 wt.%. See the table in column 2, top. Thus, the examiner maintains the position that the high quality blended jet fuel composition of Kirk, Jr., in view of Halik, meets the compositions of the claims.

(3) Claims 1-3, 5-9 and 14-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Schreiner et al.

Schreiner et al [“Schreiner”] disclose a low smoke firefighter training liquid hydrocarbon composition containing (a) n-paraffins (n-alkanes) in an amount of from about 95-100 wt.%, cycloparaffins and iso-paraffins, and (b) a volatile iron compound dissolved or dispersed in the liquid hydrocarbon composition in an amount of from about 0.1 to 10 wt.%. See column 2, lines 20-41 and column 4, lines 1-31. Appellants’ open-ended claim language “comprising” allows for the addition of other additives to the composition such as the iron component of Schreiner.

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The examiner maintains the position that the liquid hydrocarbon composition of Schreiner appears to meet the limitations of the kerosene composition of the claims. Although a weight ratio of n-paraffins and/or iso-paraffins to the cyclo-paraffins is not set forth, the examiner is of the position that the claimed composition may be the same since it comprises the same components. Although a smoke point is not set forth, the examiner is of the position that the smoke point of the prior art composition may be the same as the claimed composition since since the compositions comprise the same components.

(4) Claims 1-3, 5-12 and 14-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Berlowitz et al in combination with either Halik et al, Kirk, Jr. or Schreiner et al.

Berlowitz et al ["Berlowitz"] disclose a clean distillate useful as a diesel fuel or diesel blending stock produced from Fischer-Tropsch wax. The distillate has the properties of at least 95 weight % paraffins, preferably at least 99 weight % paraffins, an isoparaffin to n-paraffin ratio of about 0.3 to 3.0, and essentially nil unsaturates (olefins and aromatics), sulfur and nitrogen. Berlowitz teaches that the product contains essentially nil cyclic paraffins which differs from the claimed invention which comprises at least one cyclo-paraffin and/or alkyl derivative thereof. However, as evidenced by Halik et al, Kirk, Jr. and Schreiner et al set forth above, cyclic paraffins are well-known components in such paraffinic compositions. Thus, having the prior art references before the inventors at the time the invention was made, it would have been obvious to the skilled artisan to have combined the Fischer-Tropsch derived product of Berlowitz with other non-synthetic paraffinic compositions such as those set forth in Halik,

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Kirk, Jr. and Schreiner. It has been held that it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, here, as paraffinic compositions, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art. *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

(10) Response to Argument

Appellants argue that the Halik reference relates to a catalytic process for making jet fuel and that a person skilled in the art would not look to a jet fuel to solve appellants' problem of an unpleasant odor in a heating fuel. This is not deemed to be persuasive because independent claim 1 is drawn towards a composition "comprising", which is open-ended, components (a) and (b) in a specific ratio by weight and the Halik reference sets forth a composition which appears to anticipate the claim. The examiner is of the position that the claims are not limited to kerosene heating oil compositions as argued by appellants, but broadly to any composition that comprises components (a) and (b) in the recited amounts.

Appellants argue that the patent to Kirk, Jr. discloses jet fuel compositions having high smoke points and low freeze points, but it does not disclose a kerosene heating oil composition. This is not deemed to be persuasive because, as set forth above, the claims are not limited to kerosene heating oil compositions but broadly to any composition that comprises components (a) and (b) in the recited amounts. The claim language "kerosene heating oil" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not

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accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Appellants argue that the Schreiner reference is directed to firefighter training material and does not teach appellants' invention of a kerosene oil (heating oil) comprising at least 99 wt.% of (a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms and (b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms, wherein the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75. This is not deemed to be persuasive because Schreiner sets forth suitable compositions in the Table in column 4, top, that contains 75-100 wt.% of n-alkanes, less than 5.0 wt.% aromatics and 0 to 25 wt.% of other constituents. Schreiner teaches that cycloparaffins are acceptable as the "other constituents". The examiner maintains the position that the compositions disclosed in Schreiner meet the limitations of the above rejected claims.

Appellants argue that in regards to the rejection over Berlowitz et al in combination with either Halik et al, Kirk, Jr. or Schreiner et al., the examiner has the burden to establish a *prima facie* case of unpatentability of the pending claims on any grounds, including obviousness. And that if examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more, the appellant is entitled to a grant of the patent. This is not deemed to be persuasive because, as set forth above, it would have been obvious to the skilled chemist to have

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combined the Fischer-Tropsch derived product of Berlowitz with other non-synthetic paraffinic compositions such as those set forth in Halik, Kirk, Jr, and Schreiner. It has been held that it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, here, as paraffinic compositions, in order to form a third composition to be used for the very same purpose.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Ellen M McAvoy/

Ellen McAvoy
Primary Examiner
Art Unit 1797

Conferees:

Glenn Caldarola

/Glenn A Caldarola/

Acting SPE of Art Unit 1797

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/Christopher A. Fiorilla/

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